

Chain Linked Quantity Indices When the Quantity has Been Zero

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What meaning may be ascribed to chain linked quantity indices when the quantity has been zero? Is it possible to construct an extension which does not have the zero-quantity problem which the usual definition yields?

Underlying the problems for chain-linked quantity index variables seems to be the lack of price information when statistics in current year prices and previous year prices only are available.

The paper recommends that price indices need to be released (variable for variable) as well as the values in current year prices (and previous year prices) in order for users to be able to handle quantities passing a zero as a routine matter.

Examples of how to reconstruct these price indices are given. A description of how to reconstruct these price indices under more generalized circumstances is a topic of future research.